

## DOCUMENT RESUME

ED 474 681

CG 032 292

AUTHOR Goggin, K.; Metcalf, K.; Kennedy, S.; Wise, D.; Murray, T.; Broadus, K.; Burgess, D.; Reese-Smith, J.; Terhune, N.; Buckendahl, H.; Downes, A.

TITLE HIV Risk and Substance Use Behaviors among African American Youth.

PUB DATE 2002-08-00

NOTE 20p.; Paper presented at the Annual Conference of the American Psychological Association (110th, Chicago, IL, August 22-25, 2002).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE EDRS Price MF01/PC01 Plus Postage.

DESCRIPTORS \*Acquired Immunodeficiency Syndrome; Adolescent Behavior; \*Black Youth; Drinking; Drug Use; Inner City; Marijuana; Peer Influence; \*Predictor Variables; Sexuality; \*Substance Abuse

IDENTIFIERS \*Risk Taking Behavior

## ABSTRACT

The purpose of this study was to determine if there was an association between HIV sexual risk and substance use behaviors among a sample of inner-city African American youth. As part of a larger study, youth (n=193) completed questionnaires that measured sexual risk as well as substance use. Participants were separated in to high risk and low risk groups. A greater proportion of high risk participants as compared to low risk youth used alcohol and marijuana in the last month. Further, a significant correlation between sexual risk scores and alcohol consumption in the last month was observed, with greater sexual risk being associated with greater alcohol consumption and marijuana use. High risk youth also report lower self-efficacy for refusing drugs or refusing sex after drinking. Results indicate that African American youth who engage in high risk sexual behaviors are more likely to use alcohol and marijuana than those who do not. Prevention programs should be designed to address the interaction of these risk behaviors. (Author)

# HIV Risk and Substance Use Behaviors among African American Youth

by

K. Goggin  
K. Metcalf  
S. Kennedy  
D. Wise  
T. Murray  
K. Broadus  
D. Burgess  
J. Reese-Smith  
N. Terhune  
H. Buckendahl  
A. Downes

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## Abstract: HIV Risk and Substance Use Behaviors Among African American Youth

The purpose of this study was to determine if there was an association between HIV sexual risk and substance use behaviors among a sample of inner-city African American youth. As part of a larger study, youth (n=193) completed questionnaires that measured sexual risk (last 3 months) as well as substance use (past month). Participants were separated into high risk ( $\geq 1$  unprotected sexual act) and low risk (0 unprotected sexual acts) groups. A greater proportion of high risk participants as compared to low risk youth used alcohol (44% vs. 26%;  $\chi^2 = 3.82$ ,  $p = .06$ ) and marijuana (54% vs. 32%;  $\chi^2 = 13.73$ ,  $p < .05$ ) in the last month. Further, a significant correlation between sexual risk scores and alcohol consumption in the last month was observed, with greater sexual risk being associated with greater alcohol consumption ( $r = 0.22$ ,  $p = 0.01$ ) and marijuana use ( $r = 0.26$ ,  $p = .01$ ). High risk youth also report lower self-efficacy for refusing drugs or refusing sex after drinking. Results indicate that African American youth who engage in high risk sexual behaviors are more likely to use alcohol and marijuana than those who do not. Prevention programs should be designed to address the interaction of these risk behaviors.

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## HIV Risk and Substance Use Behaviors Among African American Youth

Rates of HIV infection continue to rise among African American (AA) youth despite declining rates in other populations (CDC, 2001). The rate of new HIV infection among AA adolescents is more than 8 times that of Caucasian youth and 6 times that of Hispanic adolescents (CDC, 2001). In 1999, AA adolescents (age 13-19) accounted for 56% of all new HIV diagnoses (CDC, 2001). While HIV infection among youth is most often attributed to sexual transmission, other risk behaviors (i.e., intravenous drug use) have been implicated (CDC, 2001).

Rates of heavy drinking ( $\geq 5$  drinks) among AA adolescents have stayed consistently high (15% for boys and 5% for girls) over a 10-year period whereas rates for white adolescents have decreased (Caetano & Clark, 1998; Jones-Webb, 1998). Frequent heavy drinking places AA adolescents at higher risk for problem development than whites (Caetano & Clark, 1998). In fact, AA adolescents who drink experience disproportionately more negative consequences as a result of alcohol use compared to youth of other ethnic groups (Wallace, 1999).

Evidence is emerging to suggest that alcohol, substance use, and sexual risk behaviors may be related. For example, Newman and Zimmerman (2000) found that risky sexual behaviors were associated with alcohol and other drug use among African American males ages 15-18. Boyer (2000) observed that adolescent female marijuana users had a greater number of lifetime sexual partners and history of an STD. Additionally, sex while under the influence of alcohol or

marijuana is associated with inconsistent condom use and multiple partners (Poulin & Graham, 2001). The purpose of this study was to determine if there was an association between HIV sexual risk and substance use (i.e., alcohol and marijuana use) behaviors among a sample of inner-city African American youth.

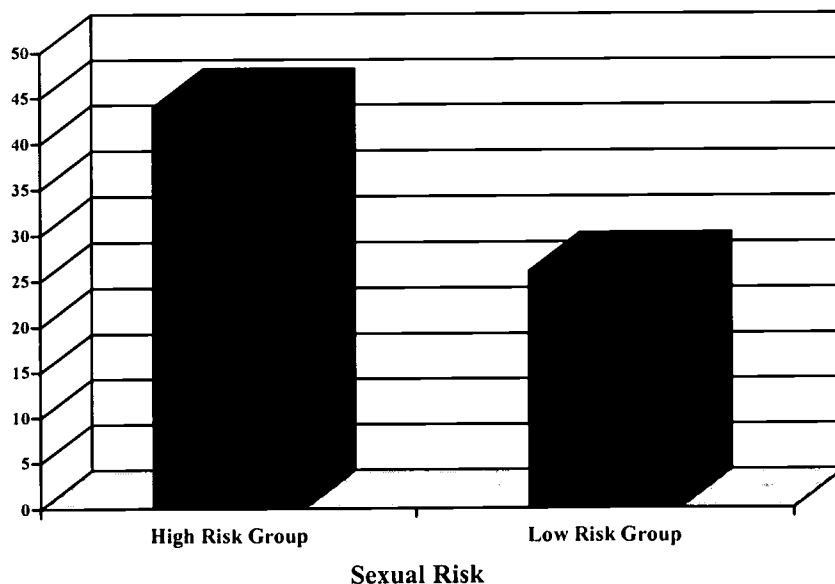
Participants were 193 youth enrolled in two alternative schools (one middle and one high school) in a major Midwestern city. On average, youth were 15 years old ( $SD = 2.11$ , range 11-21), identified as African American (83%) and equally likely to be male (52%) or female (48%). As part of a larger study, participants completed questionnaires in their homerooms or counseling groups during the fall semester of 2001. The questionnaire asked participants to record the number of vaginal, anal, and/or oral sexual risk behaviors they had engaged in during the past 3 months. It also queried the number of times condoms were used. A **sexual risk score** for each sexually active participant ( $n = 116$ ) was calculated by subtracting the number of sexual encounters in which a condom was used from the total number of sexual encounters. Sexually active participants were classified as high risk if they reported  $\geq 1$  occasion of unprotected sex ( $n = 41$ ). All others were classified as low risk ( $n = 75$ ). Data on substance use was obtained by asking participants to indicate the number of days in the past month on which they used any substance including alcohol, marijuana, heroin, and six other commonly used substances. A **substance use score** was calculated for each participant by summing the number of days of use of each substance in the past month.

## Results

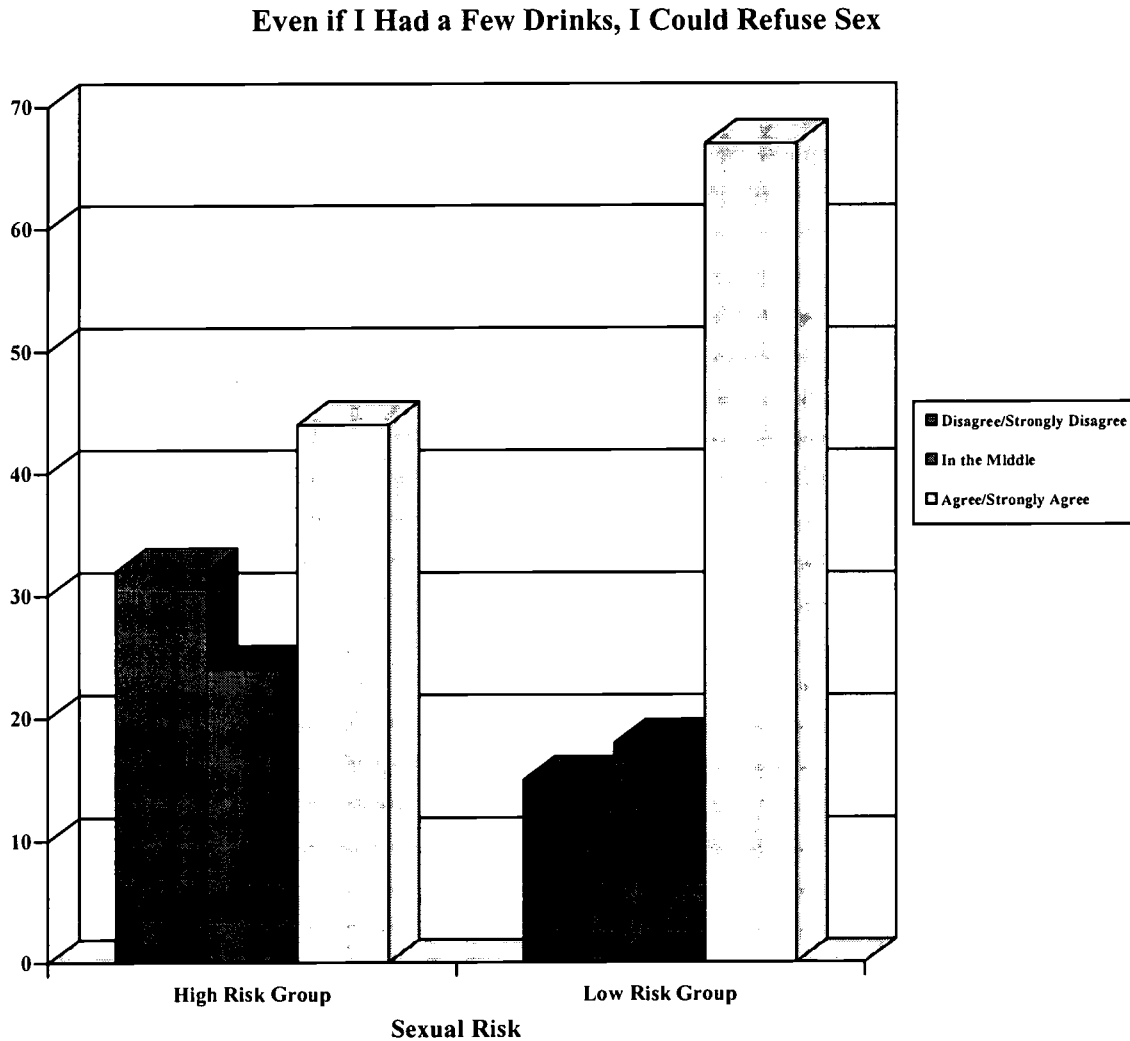
Participants classified as high or low sexual risk did not differ in terms of their average age, gender, ethnic identity or age of sexual initiation. However, participants in the high risk group reported a significantly greater number lifetime sexual partners ( $M = 6.55$ ,  $SD = 6.55$ ) than participants in the low risk group ( $M = 3.96$ ,  $SD = 4.66$ ;  $t(103) = 2.36$ ,  $p = .02$ ), as well as a significantly greater number of sexual acts (vaginal, anal, or oral) in the past three months ( $M = 11.68$ ,  $SD = 13.19$ ) than participants in the low risk group ( $M = 3.52$ ,  $SD = 4.74$ ,  $t(110) = 4.73$ ,  $p = .00$ ).

There was a significant correlation between sexual risk scores and alcohol consumption in the last month, with greater sexual risk associated with greater alcohol consumption ( $r = 0.22$ ,  $p = 0.01$ ). While the groups did not differ in terms of the average number of days in which alcohol was used in the past month (high risk = 10.44 vs. low risk = 8.11), a greater proportion of high risk participants used alcohol in the last month (44% vs. 26%;  $\chi^2(1,1) = 3.82$ ,  $p = .06$ ).

### Percentage of Youth using Alcohol in last 30 Days

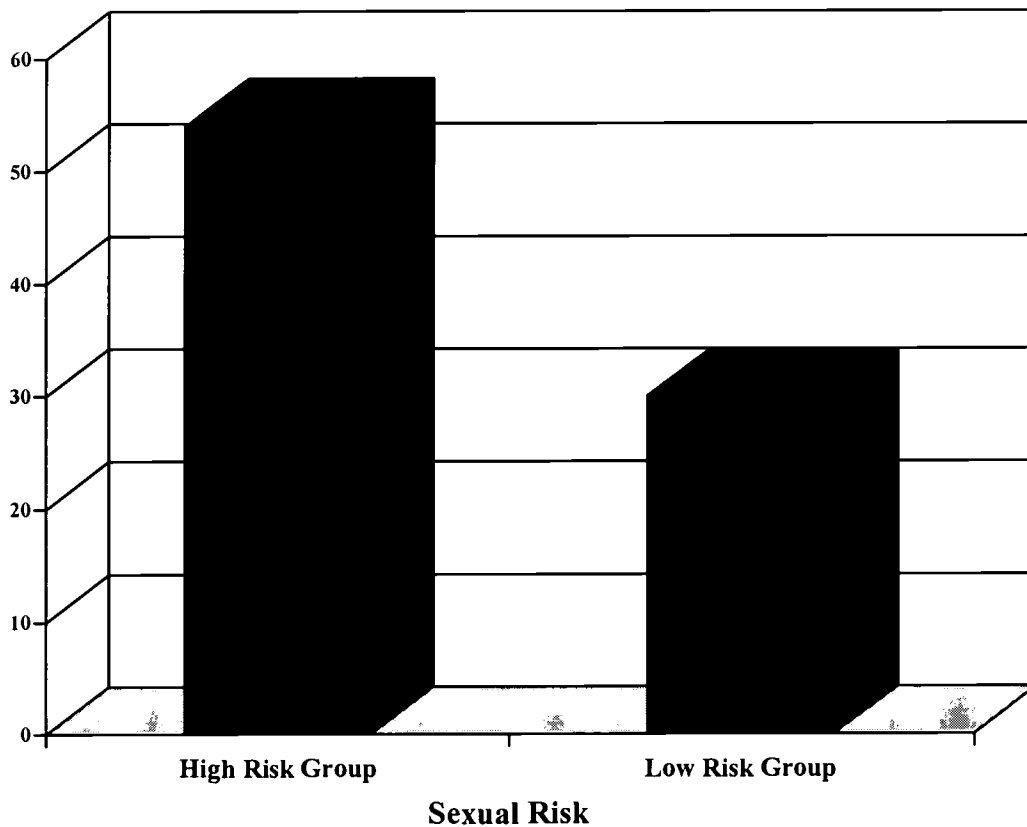


Furthermore, there was also a significant correlation between sexual risk scores and endorsement of the item “*Even if I had a few drinks, I could refuse sex,*” with high-risk participants less likely to endorse this item (68% vs. 44%,  $\chi^2 = 6.11$ ,  $p < .05$ ).



An association was also observed between sexual risk scores and marijuana use during the past month ( $r = 0.26$ ,  $p = .01$ ), with high risk participants reporting more days of use. Additionally, a greater proportion of high risk participants smoked marijuana during the past month (54%) than low risk participants (32%;  $\chi^2 = 13.73$ ,  $p < .05$ ).

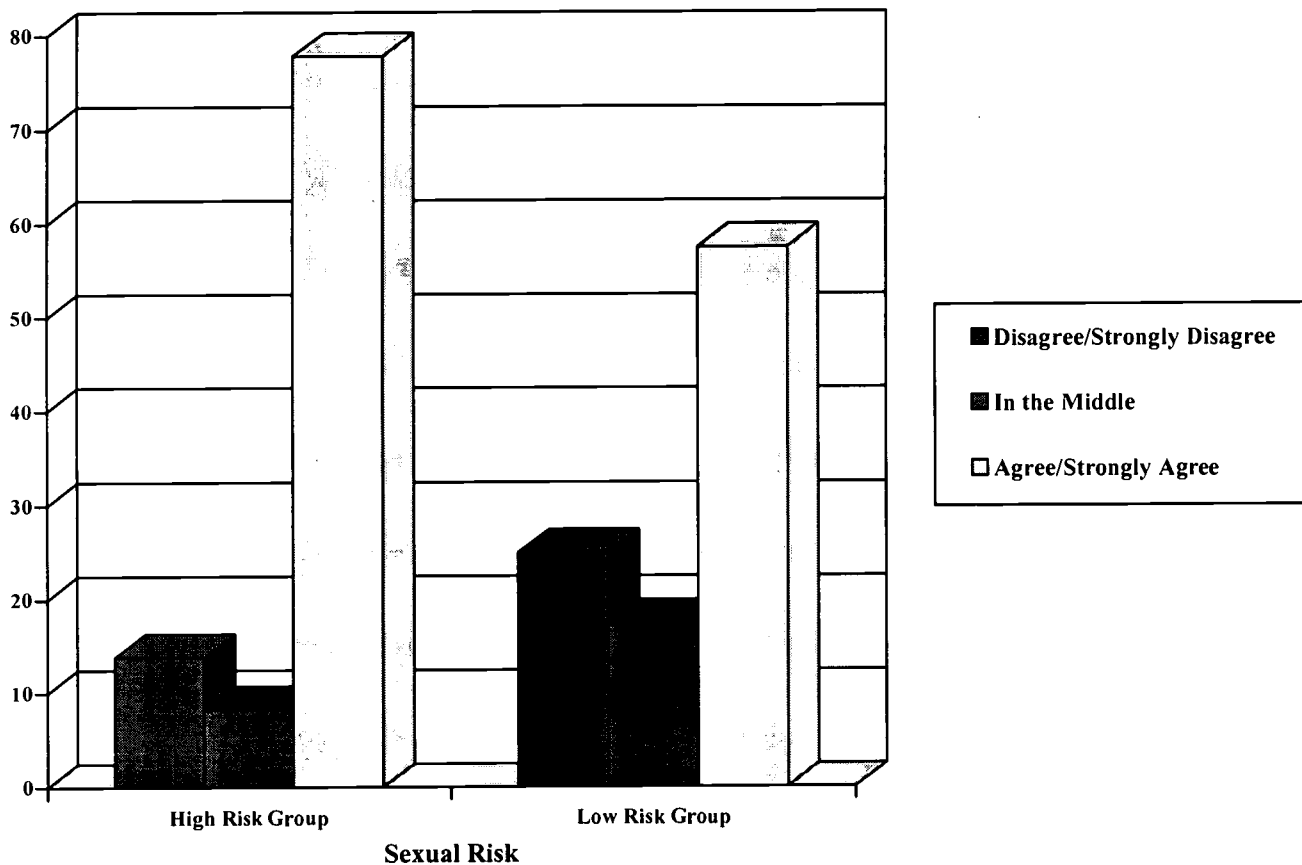
### Percentage of Youth using Marijuana in the last 30 Days





Furthermore, there was a significant correlation between sexual risk scores and endorsement of the item “*I could refuse drugs, if a friend offered some,*” with, high risk participants less likely to endorsed this item (58%) than low risk youth (78%;  $\chi^2 = 5.07$ ,  $p < .05$ ).

### I Could Refuse Drugs if a Friend Offered Some



## Conclusion

AA youth who engage in high risk sexual behaviors are more likely to use alcohol and marijuana than those who do not. High risk youth also report lower self-efficacy for refusing drugs or refusing sex after drinking. Prevention programs should be designed to address the interaction of these risk behaviors.

## References

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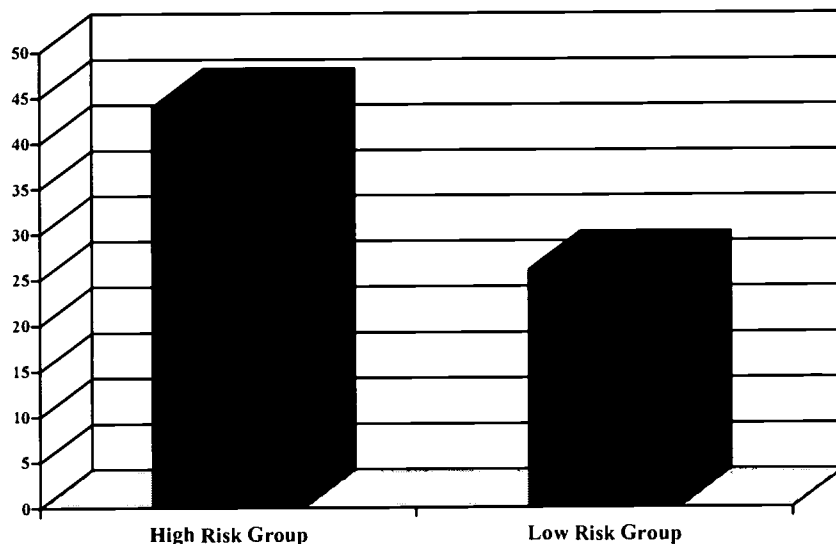
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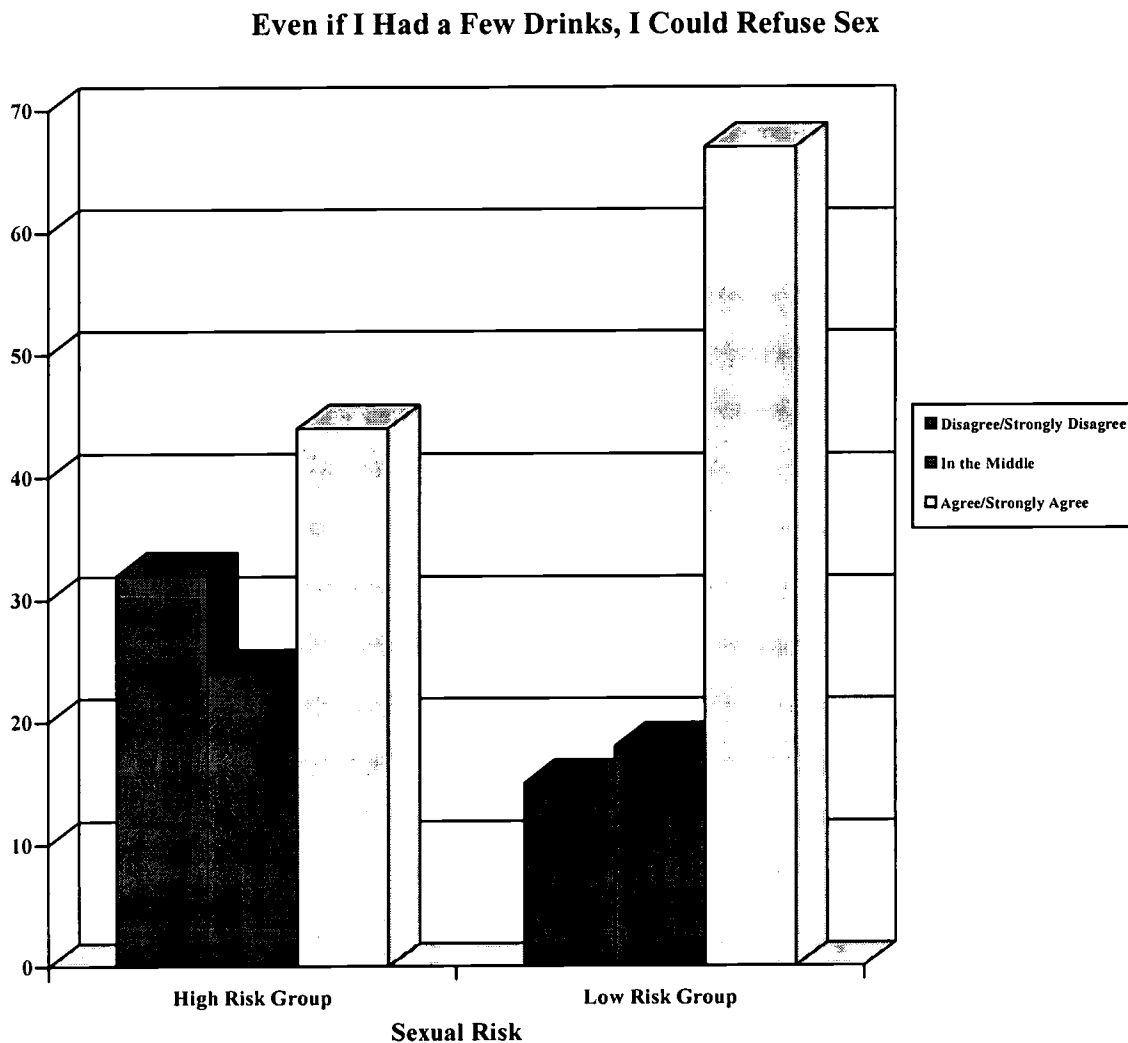
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### Percentage of Youth using Alcohol in last 30 Days



Sexual Risk 15

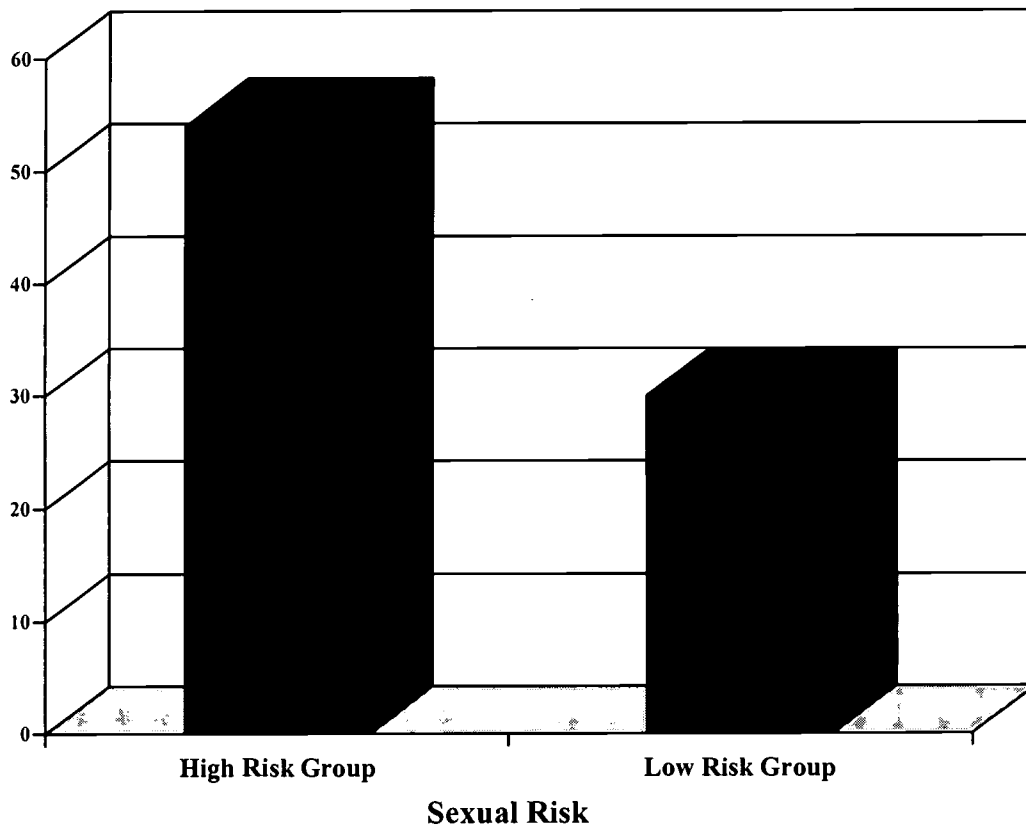
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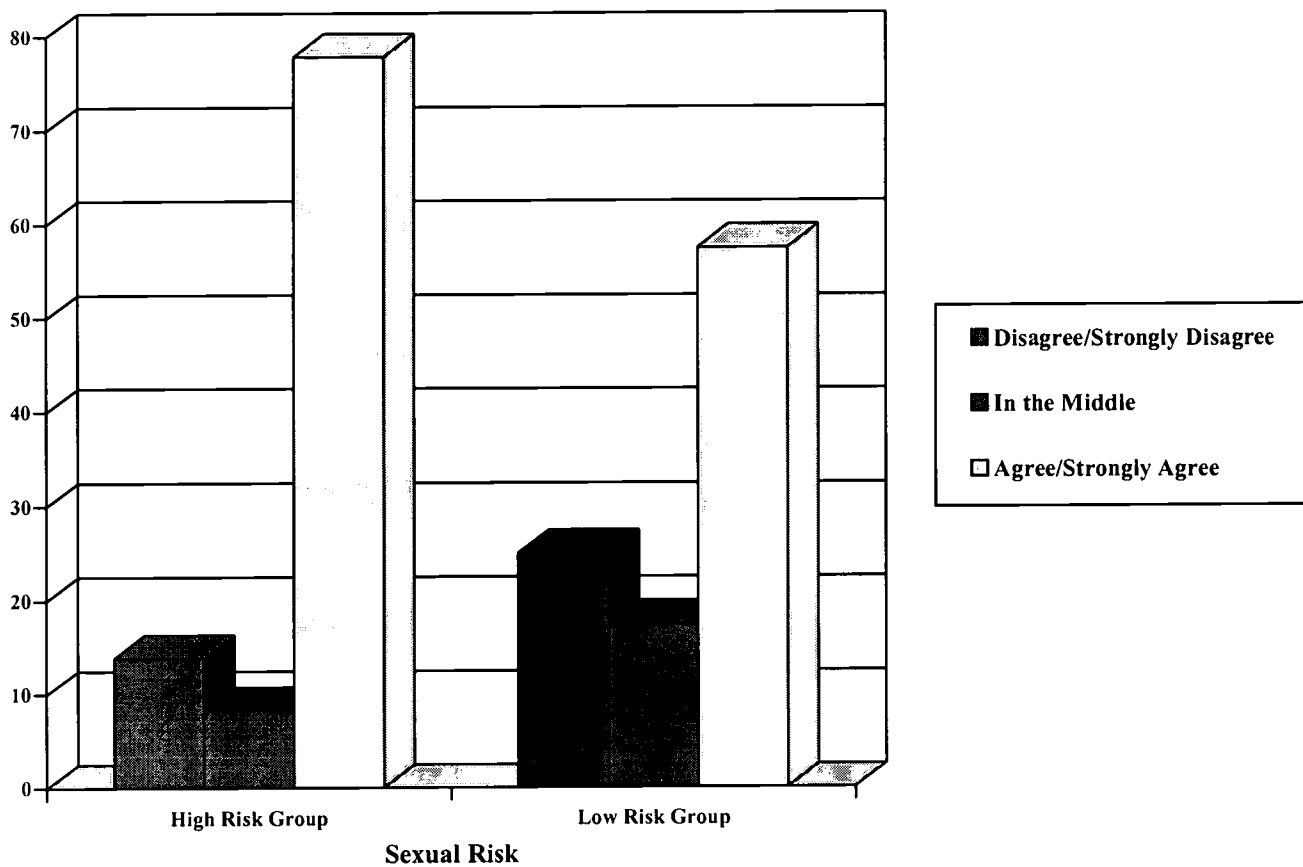
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